

**Northwestern Hawaiian Islands
Coral Reef Ecosystem Reserve Advisory Council
Reserve Coordinator's Report
October 2005-January 2006**

Recent Reserve Advisory Council / Reserve Activities

Date	Meeting/Event	Participants
October 11, 2005	Reserve Seminar Series: Presentation by Dr. Laurence McCook from Australia's Great Barrier Reef Marine Protected Area (GBRMPA)	Laura Thompson, Bill Gilmartin, Reserve staff
October 14, 2005	Exhibit Opening: "Archipelago, A Photographic Expedition Through the NWHI"	RAC members, Reserve staff
October 15, 2005	Navigating Change Teacher's Workshop, Bishop Museum	Educators at Sea participants, interested teachers, Reserve staff
October 20, 2005	Alan Nakagawa - NOAA Educator's Expedition-Mokupapapa, <i>Third Thursday by the Bay</i>	Members of the community, Reserve staff
October 26, 2005	Hawai'i Ocean Resource Management Plan Workshop	Workshop facilitated by Kem Lowry, Reserve staff
November 3, 2005	RAC Leadership Call	Tim Johns, William Aila, Hoku Johnson, Sean Corson
November 5-7, 2005	U.S. Coral Reef Task Force meeting - Koror, Palau	Linda Paul, Reserve staff
November 8-11, 2005	129th WPFMC Council Meeting - Tumon Bay, Guam	Linda Paul, Reserve staff
November 12, 2005	NWHI Educator at Sea sharing session - Wilikoki Hale, Kaua'i	Educators at Sea participants, members of the community and students, Reserve staff
November 17, 2005	Presentation by Dr. William Walsh on managing the aquarium fishery on the West Hawai'i Coast - Mokupapapa, <i>Third Thursday by the Bay</i>	Members of the community, Reserve staff
December 1, 2005	RAC Leadership Call	Tim Johns, Linda Paul, Hoku Johnson
December 3, 2005	Navigating Change Teacher's Workshop, HIMB	Interested teachers, Reserve staff
December 12-13, 2005	USFWS Host Visit to Midway by Governor Lingle & Multi-agency Delegation	USFWS, Dan Basta, 'Aulani Wilhelm, Peter Young, Athline Clark
December 15, 2005	"Archipelago, A Photographic Expedition Through the NWHI" presented by Susan Middleton - Mokupapapa <i>Third Thursday by the Bay</i>	Members of the community, Reserve staff
December 20, 2005	130th WPFMC Council Meeting - Honolulu	Reserve staff
December 28, 2005	RAC Leadership Call	Tim Johns, Linda Paul, William Aila, 'Aulani Wilhelm, Hoku Johnson
January 12, 2006	RAC Leadership Call	Linda Paul, 'Aulani Wilhelm, Hoku Johnson
January 19, 2006	"NWHI Overview and National Marine Sanctuary Designation Presentation" -Andy Collins, Mokupapapa, <i>Third Thursday by the Bay</i>	Members of the community, Reserve staff

Sanctuary Designation

Sanctuary Designation remains the top priority of the Reserve. The designation process formally began on March 18, 2002 when the NMSP initiated a series of 10 public scoping meetings hosted in Hawai'i and Washington, D.C. The purpose of these meetings was to collect public comment regarding the possibility of a sanctuary in the NWHI. The designation process includes three major steps: the initial solicitation of public scoping and comment period under NEPA regarding the sanctuary proposal, identification and characterization of key management issues for the NWHI marine ecosystems, and the development of an EIS that includes a range of management alternatives for the region.ⁱ

Since October, designation activities have focused on completing the draft environmental impact statement and management plans; completing the 304(a)(5) fishing regulations process; and working with interagency partners on review of the documents, permitting, and the structure of future interagency coordination.

NOAA is finalizing the development of the Draft Environmental Impact Statement (DEIS) and is currently developing a recommendation for a preferred NOAA alternative. Under every proposed alternative there is a prohibition on the harvest of precious coral, crustaceans and coral reef species. We expect to have a DEIS issued for public review in the summer of 2006, a Final EIS published in December 2006, and final designation in early 2007. A brief timeline is as follows:

Current Timeline

February 2006	DEIS draft sent for internal review/ Selection of preferred alternative(s)
Summer 2006	Public review and comment period
December 2006	FEIS published
Early 2007	Record of Decision issued

Highlights:

304(a)(5) Consultation with Regional Fishery Management Council Concluded

As part of the designation process, and as directed under the National Marine Sanctuaries Act (NMSA), section 304(a)(5), the regional Fishery Management Council was given the opportunity to draft fishing regulations consistent with the goals and objectives of the proposed sanctuary. The NMSP provided the Western Pacific Fishery Management Council (WPFMC) with this opportunity on September 20, 2004 when the goals and objectives of the proposed sanctuary were delivered along with advice and recommendations on how to develop fishing regulations that would be most consistent with them. Following the receipt of the draft fishing regulations from WPFMC on April 14, 2005, NOAA found that they did not fulfill the goals and objectives of the proposed sanctuary. As a result, NOAA is moving forward to develop these draft regulations, which will be available for public review in the summer of 2006.

USFWS Host Visit to Midway by Governor Lingle & Multi-agency Delegation

NMSP Director Dan Basta and Acting Reserve Coordinator 'Aulani Wilhelm accompanied Governor Linda Lingle and a multi-agency delegation on the Governor's first visit to Midway Atoll and the NWHI. The Governor was joined by Jim Connaughton of the White House Office of Environmental Quality, Admiral Charles Wurster of the US Coast Guard, Jean Michel Cousteau of the Ocean Futures Society and National Marine Sanctuary Foundation, State Senator Fred Hemmings, and Peter Young, Chair of the State of Hawai'i Department of Land and Natural Resources.

Site Operations

The National Marine Sanctuary Program has been given the responsibility to establish infrastructure and administrative procedures to implement the operations of the Reserve. Such infrastructure and administration include establishing, operating and maintaining offices and other facilities, recruitment and hiring of staff, procuring and maintaining equipment and vehicles and establishing administrative policies and procedures. Without effective office administration and infrastructure, the Reserve would not be able to implement the directives, provisions, and conservation measures of the Executive Order.ⁱⁱ

In the past few months, the Reserve has focused on the need to increase the human resources capacity of the site to meet its growing needs. As the sanctuary designation process gears up for public comment in the summer and implementation in early 2007, it is essential that the staff resources meet the increasing demands. As such, the Reserve has begun to hire new staff and replace staff whom have recently left.

Staff Changes:

Departing Staff

- *Kaliko Amona*: One of the Reserve's longest employees left the Reserve on January 13th after working nearly five years at the Reserve. She will focus on completing her master's degree and work for the The Kokua Hawai'i Foundation as the Program Director She is already greatly missed.
- *Zachary Caldwell*: Mokupapapa Discovery Center assistant manager Zach Caldwell left the Reserve in December to work for Kona Blue Fish Farms located in Kailua-Kona.
- *Russell Jones*: NOAA Corps Officer Lt. Russell Jones (RC), was transferred to NMSP headquarters in Silver Spring, MD at the end of December.

Recent Hires:

- *Mark Guagliardo*: Mark began his post as IT Specialist in October. He comes to the Reserve from California where he worked as a programmer and system analyst for law enforcement agencies. Mark has also worked for Microsoft as a Microsoft Certified Solution Provider.
- *Kekuewa Kikiloi*: Our former RAC member recently joined the Reserve as its new Native Hawaiian Program Coordinator in November. Some of Kekuewa's duties include serving as a liaison between the Reserve and the Native Hawaiian community, and developing cultural research and educational programs. He is a doctoral candidate in Anthropology at UH Manoa.
- *Yumi Yasutake*: Yumi was hired in December as the Mokupapapa Assistant Manager. He first became interested in conservation while working for the Youth Conservation Corps on Kauai in high school. Since then, he has worked for the USFWS National Wildlife Refuge at Kilauea Point and Hawaii Volcanoes National Park. A lifelong aquarist, diver, and fisher, Yumi received a BA in Biology and a minor in Marine Science at the UH Hilo.
- *Erik Franklin*: In November Erik was hired by the Hawaii Institute for Marine Biology and is on loan to the Reserve as a GIS/Data Analyst. Since 1997, Erik Franklin has been broadly involved as an academic researcher, government scientist, and non-profit advocate with the planning, implementation, and evaluation of a network of no-take MPAs in the Florida Keys. He received his training in marine ecology and fisheries science at the University of California, San Diego and the University of Miami.

Field Operations

Given the remote nature of the NWHI Reserve and the need to implement effective management, research, education and enforcement strategies, it is necessary to conduct field activities in cooperation with other jurisdictional agencies, universities and other organizations.ⁱⁱⁱ

Since October, the Reserve has focused on wrapping up the 2006 Field Season, celebrating the first full field season and 1st birthday of the Hi`ialakai, and making progress on enforcement planning.

Highlights:

Hi`ialakai Returns from RAMP Cruise/Supports HIMB Research

On October 6, the NOAA ship HI`IALAKAI returned from its Reserve-sponsored NWHI Reef Assessment and Monitoring Program (RAMP) cruise. Scientists on board have surveyed long-term monitoring sites at French Frigate Shoals, Maro Reef, Pearl and Hermes Atoll, Midway Atoll, and Kure Atoll. The cruise advanced several research projects jointly initiated by the Reserve and HIMB during the last expedition of May-June 2005. Biologists from the Hawaii Institute of Marine Biology collected fish and invertebrate specimens for phylogenetic analyses. Acoustic tags were implanted in numerous large apex predators, including sharks.

Hi`ialakai Celebrates First Birthday

On October 8, the command and crew of the NOAA ship HI`IALAKAI were welcomed home at a first“birthday party” held at the Bishop Museum. The evening event celebrated the first anniversary of the commissioning of the ship last September, and recognized the personnel of the HI`IALAKAI for their dedicated service over the past year, in carrying out the ship’s mission to support coral reef ecosystem research, mapping, monitoring and educational activities throughout the Hawaiian archipelago and greater Pacific.

Site Visits in Micronesia Conducted En Route to US Coral Reef Task Force Meeting

In November, en route to Palau, Reserve staff spent several days on site visits in Majuro (Republic of the Marshall Islands) and Pohnpei (Federated States of Micronesia) in arranged site visits with Federal, State and local conservation-based organizations to listen, learn and exchange information on the challenges of managing remote marine protected areas. Discussions focused on enforcement, surveillance, monitoring and integrating traditional management.

Progress Made on Coordinated Enforcement Planning

Reserve and NOAA Office of Law Enforcement staff have begun meeting on a regular basis to pursue a range of technology options for monitoring activities in the NWHI. This includes investigating new technologies such as RADAR SAT, underwater acoustic arrays, satellite images and the existing technologies such as VMS and AIS. This work is a direct follow-up to the NWHI enforcement workshop held in 2004. As part of the effort, the Reserve has been investigating archival data sets to understand level of activities and where they occur in the NWHI. In addition, the Reserve will aim to install a VMS unit on the NOAA ship HI`IALAKAI this field season to test the approach.

Reserves Carries Out First Complete Field Season

The 2005 Northwestern Hawaiian Islands field season proved to be a busy one; fifteen permits were approved for a variety of activities in the NWHI. With the exception of the permit issued for the extraction of the *Casitas*, all of the permits fell into the research or education categories (See summary, next page.)

Permit Summary for 2005 Field Season

Permits Issued - 2005				
Permit #	Who	What	When	Where
NWHI-2005-001	Dr. Greta Aeby	Investigation of diseased and bleached corals	May 14 - June 7, 2005	FFS & Maro Reef
NWHI-2005-002	Dr. Carl Meyer	Movements of top level predators	May 14 - June 7, 2005	FFS & Maro Reef
NWHI-2005-003	Dr. Randall Kosaki	Carbon isotope analysis	May 14 - June 7, 2005	FFS & Maro Reef
NWHI-2005-004	Dr. Brian Bowen	Ecological connectivity across the NWHI	May 14 - June 7, 2005	FFS & Maro Reef
NWHI-2005-005	Dr. Robert B. Moffitt	NWHI lobster & bottomfish resource survey	June 7 - July 6, 2005	Necker Island & Maro Reef
NWHI-2005-006	Mr. Kekuwa Kikilo	Huaka'i 2005: Continuing the Journey of Reconnection	June 17 - 23, 2005	Nihoa & Mokumanamana
NWHI-2005-007	Dr. Joseph O' Malley	NWHI cooperative lobster tagging program	July 27 - August 19, 2005	Necker & Maro Reef
NWHI-2005-008	Mr. Peter Kelly	Extraction & scuttling of Casitas	August 4, 2005	Pearl & Hermes Atoll
NWHI-2005-009	Dr. Cindy Hunter	Collection of <i>Hypnea musciformis</i>	August 12 - 21, 2005	Mokumanamana
NWHI 2005-10	Dr. Carl Meyer & Dr. Kim Holland	Movements of top level predators	August 27- October 6, 2005	Maro Reef, FFS & Lisianski Atoll
NWHI 2005-11	Dr. Matthew Craig & Dr. Iliana Baums	Ecological connectivity across the NWHI	August 27- October 6, 2005	Maro Reef, FFS & Lisianski Atoll
NWHI 2005-12	Dr. Randall Kosaki	Carbon isotope analysis	August 27- October 6, 2005	Maro Reef, FFS & Lisianski Atoll
NWHI 2005-13	Dr. Greta Aeby	RAMP/Coral health assessment	August 27- October 6, 2005	Maro Reef, FFS & Lisianski Atoll
NWHI 2005-14	Ms. Cheryl Squair	Algal RAMP	August 27- October 6, 2005	Maro Reef, FFS & Lisianski Atoll
NWHI 2005-15	Mr. Scott Godwin	Invertebrate RAMP	August 27- October 6, 2005	Maro Reef, FFS & Lisianski Atoll

Research & Monitoring

Executive Orders 13178 and 13196 (EO) direct the Secretary to support, promote, and coordinate appropriate scientific research and assessment, and long-term monitoring of the Reserve resources, and the impacts or threats thereto from human and other activities, to help better understand, protect, and conserve these resources and species for future generations. All research and monitoring activities by the Reserve will facilitate the implementation of the management principles of the Reserve.^{iv}

Highlights:

Increase of Invasive Algae Noted in the NWHI

A rapid increase in the biomass of the invasive algae *Hypnea musciformis* entangled in NMFS lobster traps recovered at Mokumanamana (Necker Is.) was documented in 2005. *Hypnea* is best known in Hawaii as the invasive algae that washes ashore by the ton on the south-facing beaches of Maui. The Reserve's NWHI RAMP monitoring cruise last fall was conducted visual surveys at Mokumanamana in October, searching a variety of habitats for *Hypnea*. Intertidal, shallow subtidal, shallow coral reef, and deeper banks were searched without locating the source of the invasive algae.

2nd Year of Research Partnership with Hawaii Institute of Marine Biology Began in October

The Reserve began the second year of a partnership with the Hawai'i Institute of Marine Biology (HIMB) in October to develop research programs that address Reserve management questions on ecological connectivity, ecosystem condition, and coral health in the NWHI. The HIMB researchers are attempting to answer these questions through genetic studies, home range studies of large predatory utilizing acoustic tagging, and establishment of permanent stations for monitoring of coral diseases. Analysis of existing data sets synthesized new measures of diversity and ecological integrity utilizing existing monitoring data.

Evaluation of Monitoring Activities and Data Collection

The Reserve initiated a project in September with Drs. Jerry Ault and Steve Smith of the University of Miami's Rosentiel School of Marine and Atmospheric Science to evaluate the adequacy of monitoring efforts in the NWHI. A statistical power analysis of existing data will result in recommendations for refinements and improvements of sampling and monitoring designs to insure that these sampling regimes are adequate to inform managers of environmental change over time.

Hawaiian Archipelago Ecosystem Research Plan

Reserve staff are involved in drafting a coordinated regional archipelago-wide research plan. This regional science planning effort is aimed at improving ecosystem-level understandings of the living marine resources of the Hawaiian Islands in order to improve management efforts. This is a multi-agency effort that includes federal, state and local research institutions.

Reserve Research Plan development underway

As a follow-up to Charly Alexander's detail with the Reserve, Reserve science staff are developing a research and monitoring plan that will establish long term research priorities for the Reserve and identify short term (2-3 years) of research activities for implementation. This plan will provide specific operational details for implementing research activities outlined in the Reserve Operations Plan and the draft management plan for the proposed sanctuary.

Education & Outreach

Education and Outreach initiatives will seek to provide the necessary information, training, and support to the public, educational institutions and specific stakeholder groups such that they will understand the existing rules, regulations and laws and the critical importance of protecting this area, as well as how they can align their actions to enhance and not diminish conservation of the region. A relatively small percentage of the general public are aware of the existence of the NWHI, their geographic location and relationship with the main Hawaiian Islands (MHI). Through education and outreach the public will have an increased understanding and awareness of the Reserve and become equipped with the knowledge they need to help protect it for the future as well as to obey existing laws.^v

The past few months have been busy for the Reserve education team, partner organizations and educators. The Navigating Change program continues to be effective and extending its momentum into another school year. The “Archipelago” project breathes new life and momentum into outreach efforts by many agencies.

Highlights:

National Geographic’s “Archipelago” Project Makes Conservation an Art

The Reserve is finalizing logistics for a year-long statewide tour of a photographic exhibit on the flora and fauna of the NWHI, as well as conservation efforts to protect them. After its launch at the Honolulu Academy of Arts in October, on December 18, the “Archipelago: Portraits of Life in the World’s Most Remote Island Sanctuary” exhibit ended its two-month-long run at the Bishop Museum in Honolulu, and traveled to the Lyman Museum in Hilo. The exhibit is on view at the museum from December 21 through January 27, and will then travel to the Maui Ocean Center for the month of February. The full exhibit is on display in Washington DC at National Geographic through May. The traveling exhibit features 40 extraordinary images of endangered animals and plants taken by award-winning photographers Susan Middleton and David Liittschwager in the NWHI. The Reserve is sponsoring the Hawaii-based exhibit in collaboration with community venues on the various islands to raise awareness about the NWHI and support for its protection and to encourage ocean stewardship values and behaviors in Hawai‘i.

Teachers Make Progress on Curriculum Inspired by Educator-At-Sea Voyage to NWHI

During the weekend of November 12, five of the ten educators who participated in the August 2005 Educator at Sea expedition to the NWHI aboard the NOAA Ship HI‘IALAKAI met on the island of Kaua‘i to discuss educational materials being developed from the voyage. The five Hawai‘i educators discussed the lesson plans and curriculum they are developing based on their experiences from the expedition. In addition, the educators coordinated a Reef Check survey at Anini Beach that was attended by over 50 middle and high school students, visited an important cultural site on Kaua‘i, and held an evening sharing session for the community.

Navigating Change Continues Educational Momentum

On October 15th, a day-long Navigating Change Teacher’s Workshop was held at Bishop Museum. Fifty seven teachers and educators attended the free workshop that was conducted by the Reserve and other Navigating Change partners – the U.S. Fish and Wildlife Service, State of Hawai‘i and Bishop Museum. During the workshop, the revised Navigating Change Teacher’s Guide was distributed. The guide contains curriculum for grades 4-5 that teaches environmental stewardship using the Polynesian voyaging canoe Hokule‘a and the Northwestern Hawaiian Islands. The guide addresses the 2005 Hawai‘i state standards in science and social studies on topics of culture, geography, environment, geology, and more.

Underwater Pilot Telepresence Project Planned for Kane`ohe Bay

A “proof-of-concept” underwater pilot telepresence project is being planned Feb. 6-10 in Kane`ohe Bay with support from NMSP HQ and in partnership with the University of Hawaii IT Department and HIMB. NMSP is providing all the technical support and equipment for this project. Telepresence is a primary focus for the NMSP’s Education program across all sanctuary sites and currently has a partnership with Mystic Aquarium to bring live-images in from Monterey Bay National Marine Sanctuary. Telepresence is consistent with the Reserve’s focus of bringing the place to the people and not the people to the place. The pilot project will provide live images for a local high school (Moanalua high school has been identified) and a mainland school. Education activities are being designed to support teachers in the classroom.

Calendar of Upcoming Events

Date	Event	Location
January 25, 2006	Reserve 5 th Birthday Celebration	NWHI Reserve Office, Hawai'i Kai
December 21 - January 27, 2006	"Archipelago: Portraits of Life in the World's Most Remote Island Sanctuary" - Susan Middleton & David Liittschwager	Lyman Museum, Hilo Hawai'i
February 4-25		Maui Ocean Center
March 3-25		Kaua'i Community College
April 3-28		UH-Manoa Hamilton Library
May (exact dates TBA)		Molokai Museum
June 1-30		Kahilu Theatre, Waimea (Hawai'i Island)
July 7- August 12		Wailoa Center, Hilo
February 14-19, 2006	NMSP Research Coordinator's Meeting	Kaua'i
February 18-20, 2006	Maritime Archaeology & History of the Hawaiian Islands Foundation Symposium	Hapuna Prince Hotel, Hawai'i Island
February 21, 2006	2006 Ocean Sciences Meeting NMSP & NWHI aCRER Poster Session on Ecosystem-based Management	Hawai'i Convention Center
February 28 - March 2, 2006	91st WPFMC SSC Meeting	Council Office
February 28- March 10, 2006	NMSP Site Managers Meeting	Washington, DC
March 13-16, 2006	131st WPFMC Council Meeting	Ala Moana Hotel, Honolulu Hawai'i
March 14 (TBC)	"Voyage To Kure" Film Premiere	Honolulu
April 3-7, 2006	NMSP Permitting Workshop	Washington, DC
April 22, 2006	Earth Day	
April 25-27, 2006	NMSP 2006 National SAC/RAC Chairs & Coordinators Meeting	Washington, DC
May 2-5	US Coral Reef Task Force Meeting	Washington, DC
June 6-8, 2006	US Capitol Hill Oceans Week	Washington, DC
June 12-15, 2006	132nd WPFMC Council Meeting	American Samoa
June, 2006	DEIS/Management Plan Release	
July, 2006	DEIS/Management Plan Public Meetings	Locations, TBA
June/July, 2006	NOAA Pacific Islands Region facilitation of a Nautical Archaeology Society course for divers on the NOAA ship HI'IALAKAI	TBD

ⁱ NOAA (2005). Reserve Operations, p. 133

ⁱⁱⁱ NOAA (2005). Reserve Operations, p. 48.

^{iv} NOAA (2005). Reserve Operations, p. 94.

^v NOAA (2005). Reserve Operations, p. 53-54.